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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/916,692	07/27/2001	David A. Richard	VTE1-BP03	9264

7590

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EXAMINER

BARR, MICHAEL E

ART UNIT

PAPER NUMBER

1762

DATE MAILED: 08/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/916,692

Applicant(s)

RICHARD, DAVID A.

Examiner

Michael Barr

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 16-27 and 30-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 36-38 is/are allowed.
- 6) ☒ Claim(s) 16-27, 30, 33-35, 39 and 40 is/are rejected.
- 7) ☒ Claim(s) 31 and 32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments and amendments, filed 7/28/2003, have been fully considered and reviewed by the examiner. In light of the amendments to the claims, the rejections to the claims under 35 USC 112, 2<sup>nd</sup> paragraph and 35 USC 103 have been withdrawn by the examiner. In light of the submittal of the new drawing, the objection to the drawing has been withdrawn by the examiner. In light of the amendment to the specification, the objection to the specification made in the previous office action has been withdrawn. The examiner acknowledges the cancellation of Claims 1-15 and 28-29 and the addition of Claims 30-40. Claims 16-27 and 30-40 are pending.

The applicant has argued that the rejections to the claims under 35 USC 112, 1<sup>st</sup> paragraph, scope of enablement, made in the previous office action, are not proper and should be withdrawn. The examiner respectfully disagree. As indicated in the previous office action, the respective claims do not require that the surface hardening layer be an organo-silane material and that the hydrophobic coating material be a perfluoroalkylsilane. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims. The specification only describes the invention using an organo-silane material as the surface hardening layer and does not provide any guidance how to determine or find any other material which would provide the desired surface hardening layer. The applicant has not provided any evidence or showing that any material or other types of material would provide the surface hardening layer suitable

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for use in the claimed invention. It would require one skilled in the art undue experimentation to find such material to provide the claimed surface hardening layer. Also, the specification only describes the invention using a perfluoroalkylsilane as the hydrophobic coating material and does not provide any guidance how to determine or find any other material which would provide the desired hydrophobic coating layer. The applicant has not provided any evidence or showing that any material or other types of material would provide the hydrophobic coating layer suitable for use in the claimed invention. It would require one skilled in the art undue experimentation to find such material to provide the claimed hydrophobic coating layer. Therefore, it is the examiner's position that the those claims remain broader than the enabling disclosure. If the applicant can provide a showing the it would not require undue experimentation to determine suitable materials for providing the claimed surface hardening layer and hydrophobic coating layer, for use in the claimed process, then the examiner would withdraw the 35 USC 112, 1<sup>st</sup> paragraph rejection.

### *Specification*

2. The disclosure is objected to because of the following informalities: Page 3, line 19 of the specification contains reference to "Fig. 1". However, the drawing is no longer labeled as "Fig. 1".

Appropriate correction is required.

***Drawings***

3. The drawings were received on 7/28/2003. These drawings are approved by the examiner.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 34 and 39-40 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The newly recited limitation of the sum of the combined thicknesses of the silicon dioxide layers being at least 3 times greater than the sum of the combined thicknesses of the zirconium dioxide layer is not described in the specification, and thus is considered to be new matter.

6. Claims 16-22 and 26-27 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the surface hardening layer being an organo-silane material, does not reasonably provide enablement for any material. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims. The specification only describes the invention using an organo-silane material as the surface hardening layer and

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does not provide any guidance how to determine or find any other material which would provide the desired surface hardening layer. It would require one skilled in the art undue experimentation to find such material to provide the claimed surface hardening layer. Therefore, it is the examiner's position that Claims 16-22 are broader than the enabling disclosure.

7. Claims 16-19, 22-27, 30, and 33-35 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the hydrophobic coating being a perfluoroalkylsilane, does not reasonably provide enablement for any hydrophobic coating material. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims. The specification only describes the invention using a perfluoroalkylsilane as the hydrophobic coating material and does not provide any guidance how to determine or find any other material which would provide the desired hydrophobic coating layer. It would require one skilled in the art undue experimentation to find such material to provide the claimed hydrophobic coating layer. Therefore, it is the examiner's position that Claims 16-19 and 22-25 are broader than the enabling disclosure.

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***Allowable Subject Matter***

8. Claims 36-38 are allowed.

9. Claims 31-32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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10. Claims 16-27, 30, 33-35, and 39-40 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, first paragraph, set forth in this Office action.

***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Barr whose telephone number is 703-305-7919. The examiner can normally be reached on Monday-Thursday 6:00 am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on 703-308-2333. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

A handwritten signature in black ink, appearing to be 'Michael Barr', with a large, stylized loop at the end.

Michael Barr  
Primary Examiner  
Art Unit 1762

MB  
August 14, 2003